Terry Tope
3/22/06

For a *300 cm³ sample bottle*, the following equation relates PPM by weight N_2 in liquid argon to sample bottle pressure

PPM_w = Parts per million nitrogen in liquid argon by weight.
psig = Sample bottle pressure, cryostat assumed to be at 2 psig.
depth = indicated liquid depth, level probe must be submerged to use this equation.

$$PPM_w = \frac{45.94 \text{ x } psig}{11.42 \text{ x } depth + 104.2}$$

$$\frac{PPM_w \text{ x } (11.42 \text{ x } depth + 104.2)}{45.94} = psig$$